

L42 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1999:48574 CAPLUS  
 DN 130:155189  
 ED Entered STN: 25 Jan 1999  
 TI Casein-free cast-coating compositions and paper coated by them  
 IN Takagi, Toshihiko; Tanabe, Masaru; Oyanagi, Kaneko; Takano, Koji; Wang, Chinkai; Kojima, Takashi; Kitamura, Katsunori; Kawabe, Kuniaki  
 PA Mitsui Chemicals Inc., Japan  
 SO Jpn. Kokai Tokkyo Koho, 18 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM D21H019-44  
 ICS C09D133-06; C09D133-26; C09D139-00; C09D147-00  
 CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)  
 Section cross-reference(s): 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11012987	A2	19990119	JP 1997-155268	19970612 <--
PRAI	JP 1997-155268		19970612		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 11012987	ICM	D21H019-44
	ICS	C09D133-06; C09D133-26; C09D139-00; C09D147-00

AB The compns. giving cast-coated paper with high gloss and good printability are formulated from pigments and binders as usual where the binders are obtained from (A) copolymer latexes of aliphatic dienes and comonomers or/and copolymer latexes of (meth)acrylic acid esters, and (B) (meth)acrylamide polymers prepared in the presence of reactive surfactants. Thus, heating an allylamine amide of Pabelas NP (alkenylsuccinic acid) Na-salt with acrylamide and dimethylaminoethyl methacrylate in the presence of redox catalyst in water gave a reactive surfactant. Protective-colloid

polymerization

of butadiene with styrene, acrylic acid, itaconic acid and methacrylamide in the presence of the reactive surfactant gave a copolymer latex. Mixing the latex with a pigment dispersion containing UW-90 (kaolin) and Tama Pearl 123 (low-d. CaCO<sub>3</sub>), Nopco PEM-17 (release agent), Polyac 518N01 (diene copolymer latex) and Polyac 518D59 (diene copolymer latex) gave a cast coating for paper.

ST cast coating paper acrylamide copolymer latex; casein free cast coating paper latex binder; alkenylsuccinic acid allylamide copolymer latex binder coating; butadiene copolymer latex binder coating paper; reactive surfactant acrylamide copolymer latex binder coating

IT Kaolin, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (UW 90, pigments; casein-free cast-coating compns. and paper coated by them)

IT Paper

(casein-free cast-coating compns. and paper coated by them)

IT Coating materials

(latex; casein-free cast-coating compns. and paper coated by them)

IT Surfactants

(reactive; for manufacture of binders for casein-free cast-coating compns.)

IT 131359-96-1, Bonron S 482TB 200644-95-7, Polyac 518D59 200645-01-8, Polyac 518N01

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(binder; casein-free cast-coating compns. and paper coated by them)

IT 101379-74-2P 114783-16-3P, Acrylamide-ethylene oxide graft copolymer

220150-86-7P 220150-89-0P 220150-90-3P 220150-92-5P 220150-95-8P  
220155-92-0P, Acrylamide-ethylene oxide graft copolymer dodecyl ether  
220155-93-1P, Acrylamide-ethylene oxide graft copolymer sulfate ester  
ammonium salt 220206-94-0P 220206-96-2P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP  
(Properties); TEM (Technical or engineered material use); PREP  
(Preparation); USES (Uses)

(casein-free cast-coating compns. and paper coated by them)

IT 471-34-1, Calcium carbonate, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(low-d. Tama Pearl 123, pigments; casein-free cast-coating compns. and  
paper coated by them)

IT 220206-97-3P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP  
(Properties); TEM (Technical or engineered material use); PREP  
(Preparation); USES (Uses)

(manufacture of binders for casein-free cast-coating compns.)

RN 131359-96-1

RN 200644-95-7

RN 200645-01-8

RN 101379-74-2P

RN 114783-16-3P

RN 220150-86-7P

RN 220150-89-0P

RN 220150-90-3P

RN 220150-92-5P

RN 220150-95-8P

RN 220155-92-0P

RN 220155-93-1P

RN 220206-94-0P

RN 220206-96-2P

RN 471-34-1

RN 220206-97-3P

L42 ANSWER 2 OF 3 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 1999-149184 [13] WPIX

DNC C1999-044515

TI Coating composition for cast coated paper - comprises pigment and adhesive  
which includes copolymer emulsion obtained from aliphatic conjugate di  
olefin -based monomer and comonomer and/or from (meth)acrylic ester-based  
monomer and comonomer.

DC A12 A14 A82 F09 G02

PA (MITC) MITSUI PETROCHEM IND CO LTD

CYC 1

PI JP 11012987 A 19990119 (199913)\* 18 D21H019-44 <--

ADT JP 11012987 A JP 1997-155268 19970612

PRAI JP 1997-155268 19970612

IC ICM D21H019-44

ICS C09D133-06; C09D133-26; C09D139-00; C09D147-00

AB JP 11012987 A UPAB: 19990331

A coating compsn. uses a pigment and an adhesive as its principal  
constituents. The adhesive contains: (a) a copolymer emulsion obtd. by  
applying emulsion polymerisation to an aliphatic conjugate diolefin-based  
monomer and a comonomer and/or a copolymer emulsion obtd. by applying  
emulsion polymerisation to a (meth)acrylic ester-based monomer of formula  
 $\text{CH}_2=\text{C}(\text{R}_1)-\text{C}(=\text{O})-\text{OR}_2$  (I) and a comonomer; and (b) a (meth)acrylamide-based  
polymer using a reactive surface active agent as a copolymeric  
constituent.

In (I), R1 = a hydrogen atom or a methyl gp.; and R2 = a 1-12C alkyl  
gp.

Also claimed is a cast coated paper which is formed by coating the  
coating material compsn. on paper.

ADVANTAGE - The coating compsn. produces cast paper having improved

white paper and printing gloss and a surface having uniform strength. No casein is used.

Dwg.0/0

FS CPI

FA AB

MC CPI: A04-B01E; A04-D04A1; A04-F06E7; A12-B03A; F05-A06B; G02-A05C

L42 ANSWER 3 OF 3 JAPIO (C) 2005 JPO on STN

AN 1999-012987 JAPIO

TI COATING MATERIAL COMPOSITION FOR CAST COAT PAPER, AND CAST COAT PAPER OBTAINED BY APPLYING THE SAME COMPOSITION

IN TAKAGI TOSHIHIKO; TANABE MASARU; OOYANAGI SHIYOUKO; TAKANO KOJI; OU KINKAI; KOJIMA TAKASHI; KITAMURA KATSUNORI; KAWABE KUNIAKI

PA MITSUI CHEM INC

PI JP 11012987 A 19990119 Heisei

AI JP 1997-155268 (JP09155268 Heisei) 19970612

PRAI JP 1997-155268 19970612

SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1999

IC ICM D21H019-44

ICS C09D133-06; C09D133-26; C09D139-00; C09D147-00

AB PROBLEM TO BE SOLVED: To obtain a coating material composition having a pigment and adhesive as main components excellent in glossiness without using casein, capable of making the concentration of the coating material high and improving the operation efficiency, by making the adhesive include a specific copolymer emulsion and a specific (meth)acrylamide-based polymer in an adhesive.

SOLUTION: This coating material composition consists essentially of a pigment such as clay and an adhesive, and the adhesive comprises (A) a copolymer emulsion obtained by carrying out emulsion polymerization of an aliphatic conjugated diolefin-based monomer with a monomer copolymerizable with the monomer and/or a copolymer emulsion obtained by carrying out emulsion polymerization of (meth)acrylic acid ester-based monomer represented by formula I ( $R_{1</math> is H or methyl;  $R_{2</math> is a 1-12C alkyl) with a monomer copolymerizable therewith and (B) a (meth)acrylamide-based polymer containing a reactive surfactant such as a compound of formula II [ $R_{3</math> is a 6-48C saturated hydrocarbon, etc.;  $R_{4</math> is H or methyl; M is H, an alkali metal, etc.; X is NH, O, etc.] as a copolymer component. Furthermore, the coating material composition is preferably obtained by compounding 100 pts.weight pigment with 8-40 pts.weight component A and 0.1-10 pts.weight component B.$$$$

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